

Clark County Health Department

Pool and Spa Operations Guide



2003

Operating Permit

Any person operating a water recreation pool facility (pool, wading pool, spray pool or spa) needs a current permit issued by the Clark County Health Department pursuant to WAC 260-040. The permit is valid for one year and is subject to annual renewal.

Surveillance

Owners and operators of water recreation facilities shall permit a representative of the Clark County Health Department to perform inspections as necessary to ensure compliance with standards pursuant to WAC 246-260-050 and 246-260-060.

Water Quality Standards

Operators need to maintain adequate levels of disinfection at all times pursuant to WAC 246-260-070.

Free available chlorine levels in swimming pools must be maintained at 1.5 parts per million (ppm) to 6.0 ppm and at 3.0 ppm to 10.0 ppm in spas. Water samples that are taken by the Health Department representative for lab analysis must produce a bacteria level of less than 200 to meet the standards (pursuant to WAC 246-260-070).

Chemical and Physical Quality

pH must be maintained between 7.2 and 8.0 and preferably between 7.4 to 7.6. Disinfection becomes dramatically less effective when the pH is above the 7.4 to 7.6 range. An alkalinity level of 120 ppm to 150 ppm is best for maintaining pH at 7.4 to 7.6.

Combined chlorine must be a maximum of 50% of the free chlorine level. Whenever the combined chlorine is greater than 50% of the free chlorine, the pool needs to be super-chlorinated. In the case of spas, the water should be drained out and then refilled with fresh water.

The water clarity must be maintained so that the main drain and pool bottom is visible at all times. They must be easily seen through 10 feet of water. When the main drain cannot be easily seen, the pool must remain closed until corrected.

The maximum allowable temperature in a pool/spa is 104° F. Spa pools need to have thermometers provided, pursuant to WAC 246-260-070.

Anytime a pool or spa has been contaminated by feces, vomit, sewage, etc., it must be closed for 24 hours or longer while the pool is cleaned and super-chlorinated and the filters backwashed (sand filters) or cleaned (cartridge filters). Spas should be drained and filters cleaned before re-opening.

Spa pools must be routinely drained, cleaned and refilled at a minimum using the following formula:

Spa Volume ÷ 3 ÷ average number of users/day = number of days
between draining, cleaning and refilling (pursuant to WAC 246-260-070).

Example: 500 gallon spa with 10 users per day would need to be drained, cleaned and refilled **at least** once every 16 days.

Testing Equipment

Operators shall provide a test kit which tests for free chlorine with a range of 0.2 ppm to 10.0 ppm or higher (in the case of titration DPD test kits). The titration test kits are highly recommended because of the greater range and because they do not rely on comparing colors which is rather subjective. The test kit must be the type using DPD powder, liquid or tablets and must be able to also test for total chlorine. The test kit must be able to test pH with a range of 7.0 to 8.0 or greater.

Outdoor facilities must provide cyanuric acid testers with a range of 10 ppm. to 100 ppm. The maximum allowable levels of cyanuric acid is 90 ppm. The minimum is 30 ppm.

The test kit must be able to test alkalinity (with a range of 0 to 300 ppm). The above are pursuant to WAC 246-260-070.

Monitoring, Reporting and Recordkeeping

Operators must report to the Clark County Health Department any death, injury or illness which occurs at the pool or spa. Any incident such as a gas chlorine leak must also be reported to the Clark County Health Department immediately.

Operators must test for chlorine at least 3 times daily, and for pH once daily. These figures must be recorded and the records kept for at least three (3) years. Also:

1. Alkalinity must be tested once per week
2. Record the amount of chemicals added
3. Check and record pressure gauges and flow meters daily
4. Record any gross water contamination such as feces, vomiting, etc.
5. If a spa, record the temperature at least once daily
6. If cyanuric acid (in stabilized chlorine) is used, test and record at least once per week
7. Record estimated number of users each day. All these records must be available on request. (Above pursuant to WAC 246-260-080.)

Swimming Pool Design, Construction and Equipment Location

A construction permit is needed from the Clark County Health Department prior to construction or alteration of a pool or spa. Plans for the construction of a pool or spa must be submitted to the Clark County Health Department according to WAC 246-260-030.

Location, materials to be used, walking surfaces, fencing and other barriers, appurtenances, pool surfaces, floors and walls, etc. must conform with WAC 246-260-090 (pools) and 246-260-110 (spas).

For swimming pools, the water volume must be returned through the filter/disinfection system every six hours or less (WAC 246-260-090). Example: a 20,000 gallon pool needs a flow of 55 gallons per minute or more.

For spa pools, the turnover rate shall be between 10 to 30 minutes depending on the size of the spa and number of bathers. See WAC 246-260-110(7). Example: a 750 gallon spa needs a flow of 25 gallons per minute to provide a turnover every 30 minutes.

The pool depth must be marked on both the vertical and horizontal surfaces of the pool or spa. The deck markings must be at least 4" high and the vertical pool wall markings at least 2" high, and they must indicate "feet" after each number (WAC 246-260-090).

A safety line (floats) or marking line (on the bottom and sides of pool) must be placed at that area where a uniform slope changes to a deeper area of the pool. This must be installed according to WAC 246-260-090.

For swimming pools, the bather load must not exceed that which is indicated in Table 090.7 of WAC 246-260-090.

For spas, the maximum bather capacity (at any one time) is one person per four square feet. See 246-260-110(7) for bather loads.

Pool inlets and outlets must conform with WAC 246-260-090(13,14) and spa pools must conform with WAC 246-260-110(9 & 10). Main drain covers are to be checked often to make certain they are secure. Loose or broken drain covers must be replaced immediately. Overflow (skimmer or gutter) systems must maintain at least 60% of the flow through the filter recirculation at all times. Skimmer systems must have weirs with automatically adjustable gates to provide continuous skimming action.

The flow in swimming pools must not exceed that which is designated in 246-260-090 (15) or 246-260-110(11) for spa pools. The recirculation piping of a spa pool shall not inter-mix back with any companion swimming pool water.

Pumps, strainers, valves, etc. must conform with WAC 246-260-090(15-19) for swimming pools and WAC 246-260-110(12-14) for spa pools.

Equipment rooms must be kept locked and must conform to WAC 246-260-090(20) and 246-260-110(15). Chlorine and other chemicals should be stored in a separate room from the pump room. All the chemicals should be stored up off the floor. Acids should be stored as far from bases (soda ash) as possible. Liquids should be stored below solids (including powders and other granular substances). Organic chlorine (such as tri-chlor tablets) should never be mixed with inorganic (such as calcium hypochlorite), and their containers should not be used for other purposes.

Water supplies (make-up water) must conform with WAC 246-290 and WAC 246-260-090(21) and WAC 246-260-110(16).

Filters must meet the type and rates as indicated in WAC 246-260-090(22) and 246-260-110(17). A pressure gauge needs to be installed preceding the filter and one following the filter.

A flow meter must be installed on the pipe which returns to the pool (after the filter) on a straight section of pipe (as far from any elbows as possible).

Disinfection Equipment

Operators shall provide a continuous and effective disinfectant residual in the water. Erosion feeders are adequate only if the disinfection levels are checked several times a day. Feeders controlled by electronic sensors are required for heavy use facilities and highly recommended for all pools and spas. Hand feeding is allowed on an emergency basis only. Solid tablets or granules shall not be placed in skimmer baskets accessible to the public.

Operators must conform to these and other sections in WAC 246-260-090 (23 & 24) and 246-260-110 (18 & 19).

Heaters, Ventilation, Testing Equipment, Storage

Operators to conform with WAC 246-260-090 (25-28) and WAC 246-260-110 (20-23).

Restroom, Locker Rooms and Plumbing Fixtures

General use swimming pools must provide showers, dressing rooms, toilets, lavatories and hose bibs and conform to WAC 246-260-090 (29) and 246-260-110 (24).

Shower facilities must deliver water temperature at a range of 90° to 110° F. and provide single service soap in non-glass dispensers.

Limited-use swimming pool facilities shall provide showers, sinks, toilets and/or dressing rooms if the distance to the nearest living units or rooms is greater than the distances indicated in WAC 246-260-090 (29) and WAC 246-260-110 (24).

Lighting

Operators must provide the minimum lighting for pool and spa pool areas as outlined in WAC 246-260-090 (30) and 246-260-110 (25).

Emergency Equipment

All swimming pool operators must provide a first aid kit; two or more blankets for emergency use; a pole with a double crook life hook; a throwing ring buoy with attached rope (the width of the pool); and a telephone within one minute access or audible emergency alarm.

General use swimming pools need to provide additional emergency equipment as indicated in WAC 246-260-090(31). Spa pool operators must provide one of the following:

- a) a telephone within one minute access;
- b) an alternate means of reaching emergency medical service response numbers; or
- c) provision of an audible emergency alarm to alert others at the area of a need to respond; and must comply to all provisions of 246-260-110 (26).

Signs

Swimming pool operators shall provide a sign in the pool enclosure (near the entrance) which has the following conditions:

- a) prohibition of running or horseplay
- b) prohibition of use by persons with communicable diseases
- c) prohibition of use by persons under the influence of alcohol or drugs
- d) requirements for a cleansing shower before entering the pool
- e) warning that persons refusing to obey the regulations are subject to removal from the premises
- f) prohibition of food or drink in the pool water
- g) when no lifeguard or attendant is present, the facility use shall be limited to the following conditions:
 - 1) when pool is used by children twelve years of age or under, a responsible adult eighteen years old or older shall accompany the children and be at the pool or pool deck at all times the children use the facility
 - 2) When used by persons seventeen years old or under, a minimum of two people at the pool facility at all times the pool is in use

Spa pools are subject to the above sections (a) through (g) in addition to the following:

- h) no child six years old or younger may use a spa pool. All children twelve years old or younger shall be accompanied by an adult eighteen years old or older
- i) no person seventeen years old or younger shall use the pool alone

- j) the maximum bathing capacity of the spa pool must be posted
- k) caution that persons suffering from heart disease, diabetes, or high blood pressure should consult a physician before spa use
- l) caution for women who are or may be pregnant to seek the advice of a physician regarding spa use and to limit the woman's time in the pool
- m) all persons should limit the stay in the pool to fifteen (15) minutes at any one session

Food Service

At limited-use pools and spas, food and beverages are prohibited in the water. Any tables and chairs must be four feet from the pool edge.

General use pools must have a separate enclosure for food and beverage consumption. Policies per WAC 246-260-090 (34) and 246-260-110 (28).

Drinking Fountains

Are required at all general use swimming pools per WAC 246-260-090 (35).

Foot Baths

Are prohibited; foot showers are permitted per WAC 246-260-090 (36).

Personnel (Lifeguards, Attendants) Duties

Lifeguards or attendants must wear a distinguishing suit, uniform or emblem and must be equipped with a whistle or a signaling device.

Lifeguards must maintain current certificates from one of the approved agencies indicated in WAC 246-260-100 (5).

Operation Plan

1. Owners shall provide an operation plan.
2. Owners shall provide routine checks of the physical components as per WAC 246-260-100 (pools) or WAC 246-260-120 (spas).
3. Lifeguards are required at all general use swimming pools. Additional requirements are outlined in WAC 246-260-100 (3) (pools) and WAC 246-260-120 (3) for spas.
4. Owners shall require lifeguards and/or assistant lifeguards, attendants, coaches, water treatment operators as outlined in WAC 246-260-100(4) (for pools) or WAC 246-260-120 (4) (for spas).

5. Owners shall provide the necessary training for said personnel as indicated in WAC 246-260-100 (5) (for pools) or WAC 246-260-120 (5) (for spa pools).
6. Owners shall ensure emergency response provisions. See WAC 246-260-100 (6) (for pools) or WAC 246-260-120 (6) (for spa pools).
7. Owners shall establish rules of conduct for facility users to ensure health and safety per WAC 246-260-100 (7) (pools) or WAC 246-260-120 (7) (spas).
8. Operators shall monitor weather conditions and close the facility for electrical storms and possibly other factors such as wind, fog, etc. per WAC 246-260-100 (8) or WAC 246-260-120 (8) for spas.
9. Operators shall close the facility or portion of facility when it presents an unhealthful, unsafe or unsanitary condition. These conditions include lack of compliance with water quality or operation requirements as detailed under WAC 246-260-070; 246-260-100, and 246-260-120.

Wading Pool Design, Construction and Equipment

1. Location is the same as for swimming pools.
2. Materials are the same as for swimming pools.
3. Walking surfaces are the same as for pools except for sections "e" through "g" of WAC 246-260-130.
4. Barriers shall be the same as for swimming pools except for section "b" of WAC 246-260-090 (4).
5. Pool surfaces are the same as those for swimming pools.
6. Wading pool and floor design shall conform with WAC 246-260-130 (6).
7. Wading pool entry and exits shall conform with the provisions in WAC 246-260-130 (7).
8. The wading pool must turnover the entire pool water volume in three hours or less; and comply with the additional requirements of WAC 246-260-130 (8).
9. Pool depth markings shall be marked on the coping or deck edge as per WAC 246-260-130 (g).
10. The maximum bather load for wading pools is one bather per seven square feet (at any one time).
11. Inlets and outlets for the wading pools shall be provided as per WAC 246-260-130(11 & 12). There must be at least two main drains on the bottom of the wading pool.

12. The pump systems, strainers, flow, valves and balancing tanks (if needed) must conform with WAC 246-260-130 (13-17).
13. Equipment rooms must have at least 46 square feet floor area and meet the requirements of WAC 246-260-130 (18).
14. Make-up water shall comply with WAC 246-260-130 (19).
15. Filters for wading pools must meet the specifications in WAC 246-260-130 (20).
16. Disinfection and chemical feeding equipment must conform with WAC 246-260-130 (21 & 22).
17. Heaters must conform with WAC 246-260-130 (23).
18. Ventilation must conform with ASHRAE pool facility standards.
19. Testing equipment shall be provided as noted in the water quality section under WAC 246-260-070 (6).
20. Owners shall ensure chemical storage design and placement minimizes safety risks.
21. Owners shall provide restrooms and plumbing facilities as per WAC 246-260-130 (27).
22. Lighting must be provided with the specific intensity and specifications as indicated in WAC 246-260-130 (28).
23. Owners must provide signs which show the required conditions set forth in WAC 246-260-130 (29).
24. When food service is provided, operators must adhere to the conditions in WAC 246-260-130 (30).

Operation of Wading Pool Facilities

1. Operation Plan: Owners shall ensure the proper operation to protect the public health, safety and water quality by establishing practices and developing an operations manual addressing each of the following:
 - a. physical pool facility components
 - b. personnel
 - c. users and spectators
 - d. environmental conditions

The above four items must conform with the details outlined in WAC 246-260-140 (2-7).

2. Owners shall close the facility or portion thereof when it presents an unhealthy, unsafe or unsanitary condition. These conditions include lack of compliance with the water quality or operation requirements as detailed under WAC 246-260-070 and 246-260-140.

Spray Pool Design, Construction and Equipment

A spray pool's location, materials, walking surfaces, pool structure, inlets and outlets, valves, make-up water, waste water discharge and signs must conform with WAC 246-260-150 (1-9).

Operation of Spray Pool Facilities

Owners of spray pools must develop an operation plan which addresses each of the following:

- a. physical components
- b. personnel
- c. users and spectators
- d. environmental conditions

and conforms with all aspects of WAC 246-260-160 (1-6).

Substitution

The Clark County Health Department will permit substitutions of equipment, facilities, or procedures required by Chapter 246-260 WAC when, in the sole determination of the Health Department, data and/or research provide sufficient evidence that such substitution is equivalent to the requirement and will adequately provide for the protection of the public health and safety of persons using the facility.

Enforcement

1. The Clark County Health Department (a) shall enforce Chapter 246-260 WAC rules; or (b) may refer cases to the local prosecutor's office or the office of the Attorney General, as appropriate.
2. Enforcement actions may include any one or a combination of the following:
 - a. informal administrative conferences to explore facts and resolve problems, convened at the request of the Health Department or the owner;
 - b. orders directed to the Water Recreation Facility owner and/or operator and/or person causing or responsible for the violation of the Chapter 246-260 WAC rules;
 - c. imposition of civil penalties of up to \$500 per violation per day as authorized under RCW 70.90.200;
 - d. denial, suspension, or revocation of operating permits; and
 - e. civil or criminal action initiated by the local prosecutor's office or by the office of the Attorney General.

Details of enforcement actions such as orders, suspension and revocation of license are found in WAC 246-260-250.

Hearings

A person aggrieved by the Clark County Health Department's denial, suspension or revocation of any permit may request an administrative hearing.

Also, a person aggrieved by the Clark County Health Department's application of civil penalties may request an administrative hearing.

The hearing shall be governed by the Clark County Health Department's rules for hearings.

Owners are responsible for obtaining a construction permit from the State Health Department as per WAC 246-260-9901.

Swimming Pools/Spas Fees

Please refer to the environmental health fees schedule.